PATENT COOPERATION TREATY



From the INTERNATIONAL SEARCHING AUTHORITY

PCT

To:
BRINKS HOFER GILSON & LIONE
Attn. Wrona, Thomas J.
P.O. Box 10087
Chicago, IL 60610
UNITED STATES OF AMERICA

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

Date of mailing (day/month/year)

01/07/2002

Applicant's or agent's file reference

10716/67

International application No.

PCT/US 01/20117

Applicant

GENENTECH, INC.

FOR FURTHER ACTION See paragraphs 1 and 4 below

International filing date (day/month/year)

22/06/2001

1. X The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the

International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Fascimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Further action(s): The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90*bis*.1 and 90*bis*.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Authorized officer

Name and mailing address of the International Searching Authority

<u>o</u>))

European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk

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Henriëtte Huysing-Solles





These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

- [Where originally there were 48 claims and after amendment of some claims there are 51]:
 "Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers;
 claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
- [Where originally there were 15 claims and after amendment of all claims there are 11]: "Claims 1 to 15 replaced by amended claims 1 to 11."
- [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
 "Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
 "Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
- 4. [Where various kinds of amendments are made]: "Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the International application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PATENT COOPERATION TREATY PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 10716/67	FOR FURTHER see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.			
International application No.	International filing date (day/month/yea	(Earliest) Priority Date (day/month/year)		
PCT/US 01/20117	22/06/2001	22/06/2000		
Applicant				
GENENTECH, INC.				
This International Search Report has been according to Article 18. A copy is being tra		g Authority and is transmitted to the applicant		
This International Search Report consists X It is also accompanied by	of a total of sheets. a copy of each prior art document cited in	n this report.		
Basis of the report				
	international search was carried out on th ess otherwise indicated under this item.	ne basis of the international application in the		
the international search w Authority (Rule 23.1(b)).	as carried out on the basis of a translatio	n of the international application furnished to this		
was carried out on the basis of the	d/or amino acid sequence disclosed in the sequence listing: anal application in written form.	the international application, the international search		
	rnational application in computer readable	e form.		
· -	this Authority in written form.			
<u> </u>	this Authority in computer readble form.	ting does not as bought the displacture in the		
international application a	s filed has been furnished.	ting does not go beyond the disclosure in the		
the statement that the info furnished	rmation recorded in computer readable fo	orm is identical to the written sequence listing has been		
2. X Certain claims were fou	nd unsearchable (See Box I).			
3. Unity of invention is lac	king (see Box II).			
4. With regard to the title ,				
X the text is approved as su	bmitted by the applicant.			
the text has been establis	hed by this Authority to read as follows:			
5. With regard to the abstract,				
	hed, according to Rule 38.2(b), by this Au	uthority as it appears in Box III. The applicant may, ch report, submit comments to this Authority.		
6. The figure of the drawings to be publ	shed with the abstract is Figure No.			
as suggested by the appli	cant.	X None of the figures.		
because the applicant fail	ed to suggest a figure.			
because this figure better	characterizes the invention.			

INTERNATIONA EARCH REPORT

International application No. PCT/US 01/20117



Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sneet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely: Although claims 18-24 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged
effects of the compound/composition. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

INTER. TIONAL SEARCH REPORT

International Application No PCT/US 01/20117

A CLASSIFICATION OF SUBJECT MATTER 1PC 7 C12N15/12 C07K14/47 CO7K16/18 G01N33/50

C12N5/10 G01N33/53 C12Q1/68 A01K67/027 C12N15/62 //A61P3/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched} & \mbox{(classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{C12N} & \mbox{C07K} & \mbox{C12Q} & \mbox{G01N} & \mbox{A01K} \\ \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBL, GENSEQ, WPI Data, MEDLINE

Category °	ENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the	Relevant to claim No.	
(DATABASE EMBL [Online] EBI, Hinxton, UK; 1 June 2000 LAI ET AL.: "Homo sapiens CGI- mRNA, complete cds." Database accession no. AF15182 XP002201534 abstract -& LAI CHUN-HUNG ET AL: "Ider of novel human genes evolution conserved in Caenorhabditis el comparative proteomics." GENOME RESEARCH, vol. 10, no. 5, May 2000 (2000 703-713, XP002201533 ISSN: 1088-9051 abstract	1-16	
X Fur	ther documents are listed in the continuation of box C.	X Patent family members are li	sted in annex.
"A" docum cons "E" earlier filing "L" docum whice citati "O" docum othe "P" docum later	nent defining the general state of the art which is not idered to be of particular relevance document but published on or after the international date nent which may throw doubts on priority claim(s) or h is cited to establish the publication date of another on or other special reason (as specified) ment referring to an oral disclosure, use, exhibition or means the published prior to the international filing date but than the priority date claimed	"T" later document published after the or priority date and not in conflict cited to understand the principle invention "X" document of particular relevance; cannot be considered novel or cinvolve an inventive step when the state of particular relevance; cannot be considered to involve document of particular relevance; cannot be considered to involve document is combined with one ments, such combination being in the art. "&" document member of the same p	the claimed invention annot be considered to be considered to be document is taken alone the claimed invention an inventive step when the or more other such docupobvious to a person skilled atent family
	e actual completion of the international search 25 June 2002		0 1 07 2002
Name and	d mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Aslund, J	

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INTEL ATIONAL SEARCH REPORT

International Application No PCIAUS 01/20117

(Continua	ntion) DOCUMENTS CONSIDERED TO BE RELEVANT	
tegory °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	DATABASE EMBL [Online] EBI, Hinxton, UK; 16 December 1999 (1999-12-16) POUSTKA ET AL.: "Homo sapiens mRNA; cDNA DKFZp434C119 (from clone DKFZp434C119); complete" Database accession no. AL133584 XP002201535 abstract	1-16
	WALKER J E ET AL: "The mitochondrial transport protein superfamily" JOURNAL OF BIOENERGETICS AND BIOMEMBRANES, PLENUM PUBLISHING, NEW YORK, NY, US, vol. 25, no. 5, 1993, pages 435-446, XP002089542 ISSN: 0145-479X the whole document	1-34
	DAS K ET AL: "PREDOMINANT EXPRESSION OF THE MITOCHONDRIAL DICARBOXYLATE CARRIER IN WHITE ADIPOSE TISSUE" BIOCHEMICAL JOURNAL, PORTLAND PRESS, LONDON, GB, vol. 2, no. 344, 1 December 1999 (1999-12-01), pages 313-320, XP008003598 ISSN: 0264-6021 the whole document	1-34
,Χ	WO 00 61614 A (HUMAN GENOME SCIENCES INC; NI JIAN (US); ROSEN CRAIG A (US); RUBEN) 19 October 2000 (2000-10-19) Nucleotide Seq Id no: 2, Protein Seq Id no: 20.	1-34
,Х	US 6 132 973 A (CORLEY NEIL C ET AL) 17 October 2000 (2000-10-17) Sequence 19, 68	1-16
	XING XIAN YU ET AL: "OVEREXPRESSION OF THE HUMAN 2-OXOGLUTARATE CARRIER LOWERS MITOCHONDRIAL MEMBRANE POTENTIAL IN HEK-293 CELLS: CONTRAST WITH THE UNIQUE COLD-INDUCED MITOCHONDRIAL CARRIER CGI-69" BIOCHEMICAL JOURNAL, THE BIOCHEMICAL SOCIETY, LONDON, GB, vol. 2, no. 353, 15 January 2001 (2001-01-15), pages 369-375, XP001059156 ISSN: 0264-6021	

INTER: ATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT44S 01/20117

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 0061614	A	19-10-2000	AU AU EP EP WO WO	4073600 A 4081000 A 4451300 A 1198474 A1 1175440 A1 0061625 A1 0061774 A2 0061614 A2	14-11-2000 14-11-2000 14-11-2000 24-04-2002 30-01-2002 19-10-2000 19-10-2000
US 6132973	Α	17-10-2000	US AU AU CA EP JP WO WO US	5932442 A 2002058264 A1 9403798 A 9664598 A 2304485 A1 1017809 A2 2001517440 T 9915658 A2 9915659 A2 6146624 A 6015702 A	03-08-1999 16-05-2002 12-04-1999 12-04-1999 01-04-1999 12-07-2000 09-10-2001 01-04-1999 01-04-1999 14-11-2000 18-01-2000